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Unintended Consequences of Population Health in Medical Home Contracts with MCOs to Improve Quality of Care

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BY

Mildred Scott

A doctoral project submitted to the faculty of the Medical University of South Carolina
in partial fulfillment of the requirements for the degree
Doctor of Health Administration
in the College of Health Professional

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CHAPTER I INTRODUCTION

1.1 Introduction/Background

Public policy efforts to improve population health are important. However, any public policy may have unintended consequences, and the risk of these side-effects may be substantial if they include payment incentives to providers or economic incentives for patients. A recent policy initiative The Population Health Medical Home Contracts with MCOs to Improve Quality of Care is the focus of this study. The Center for Medicare and Medicaid Services (CMS) implemented a quality initiative to improve the quality of healthcare and services for patients with Medicare and Medicaid benefits to improve Healthcare Effectiveness Data and Information Set (HEDIS) Measures.

As a part of this initiative, CMS assigns patients to healthcare facilities, which are deemed as Patient-Centered Medical Homes, located in geographic areas. The assignment is done through the patient's health insurance carrier plans, and patients are allocated to geographically close health centers, which are then responsible for ensuring patients receive the services indicated by the HEDIS measures. In theory, this is an excellent way to assure patients access to quality care. In practice, there may be problems in the execution of the policy because health centers become responsible for all patients assigned to them and are subject to financial penalties if their HEDIS indicators fall short of programmatic.

According to the National Committee for Quality Assurance (NCQA) 2019,

> "The Healthcare Effectiveness Data and Information Set (HEDIS) is one of health care's most widely used performance improvement tools. There are 190 million people enrolled in plans that report HEDIS results. HEDIS has more than 90 measures across six domains of care such as 1) Effectiveness of Care, 2) Access/Availability of Care, 3)

> Experience of Care, 4) Utilization and Risk Adjustment Utilization, 5) Health Plan Descriptive Information, 6) Measures Collected Using Electronic Clinical Data Systems" (NCQA, 2019, para. 1).

Meeting the HEDIS standards is essential for the financial health of entities that enter into population health service contracts. Unfortunately, the population covered in the contracts often includes members who are not current patients of the contracting health center. Thus, a contracting center becomes responsible for providing care to individuals that have never been seen as a patient.

1.2 Problem Statement

Many healthcare facilities are having difficulties finding the assigned patients, and once found, there are problems getting patients to come in for wellness or preventative screening visit at a site that is not their usual care provider. There are patients assigned to the healthcare facilities which have never visited that particular healthcare organization or facility, and now they are responsible for providing outreach to ensure those patients receive the necessary care and services. Healthcare providers are required to contact the assigned patients and convince them to be a part of their medical home for care and services. Healthcare facilities are having difficulty contacting patients that were never part of their practice because the contact information provided by CMS such as phone numbers, address, and birth dates are incorrect. Further, some of the patients contacted are not willing to have wellness or preventative care and do not want to come in for those visits. If patients refuse care, then the healthcare facilities are burdened with financial penalties for non-performance for those assigned patients. The Federal Qualified Health Centers (FQHCs) will be considered a "quality risk" because of the number of

assigned patients who do not get the necessary care and preventive services specified according to the HEDIS measures for the state.

1.3 Significance of the Research

Quality is important to the healthcare field because all healthcare institutions desire the best care of their patients. A high-quality HEDIS score assures that the organization receives the revenue necessary to provide care to all patients. Unfortunately, the HEDIS quality score represents mainly the preventative type of care and service that recommend for patients seen in their organization or facility. The score measures the quality of acute care for illnesses or medical events that health centers provide to their patients or residents. The quality scores range from 1-5, with 5 (five) representing exceptional care or services standards met according to the CMS's guidelines. If those standards are met, the organization or facility will be awarded a high-quality score, incentives, increased payments from MCOs, as well as public recognition. The quality standards set by CMS, the primary purpose is to assure patients are receiving the best quality of care based on their medical needs. The Center for Medicare and Medicaid Services (2017) stated that "CMS contracted with NCQA to develop a strategy to evaluate the quality of care provided by Special Need Plans (SNPs). HEDIS measures related to many significant public health issues, such as screening for cancer, management of heart disease, smoking prevention, adherence to asthma, and diabetes guidelines" (CMS, 2017, para.1) NCQA exists to improve the quality of health care. Still, many of the NCQA quality measures are limited to "what is measurable" and focused on the prevention and management of selected chronic conditions. Thus, it may not always capture what the patient cares for the most. The lack of information may pose a problem for a facility in that some patients are not willing to come for the prescribed preventive care.

1.4 Population/Issues' of Interest

The study objective is to document the unintended consequences of population health Medical Home Contracts with Managed Care Organizations to Improve Quality of Care. We will focus on the problem that some of the patients assigned to the healthcare facilities have never visited that particular healthcare organization or facility. Because of the geographically assigned population specification, a center is held responsible for finding all assigned patients through outreach, and for ensuring those patients receive the necessary care and services specified by NCQA metrics. There is no standard approach to identify these patients, and much manpower is currently being used to find the "missing" individuals so that health center statistics and revenue are not negatively affected. The process is not well described, and qualitative analysis and description of current approaches is the first step towards improvement. Some centers are expending great efforts to reach the "missing population" who are not normally their patients, but who will be included analytical or statistical data that determines their quality ranking and reimbursement. The population of individuals that are "missing" for each health center, doctors' offices, clinics, and specialty offices are difficult to contact. Further, these missing patients are the target of substantial outreach efforts that could perhaps be better used if they were targeted to needy individuals who currently receive primary health care at a center. Many patients are "missing" because they have relocated, changed their phone numbers, gotten married and change their name, been divorced, or died without assuring that notification was sent to the Center of Medicare and Medicaid Services or the US Social Security Administration (SSA). Thus, problems with notification changes have made it difficult for healthcare agencies to contact those individuals. However, reimbursement penalties for health care organizations are severe. Thus, many centers must undertake the costly task of outreach to contact and assure that

services are delivered to the missing population. It is costly to hire staff and implement specific techniques and processes to contact patients assigned to healthcare organizations. The missing population needs may benefit from stipulated medical care and services being offered; however, the question becomes, is it worth the trouble and cost.

1) What is the process used to find the "missing" patients?
2) What are the resources (and estimated cost) used for the current process?
3) Can this process be improved?
4) Is it worth the current cost of finding "missing" patients to improve the quality of care?

1.5 Methods

We will examine the problem using one primary care health center as an example. A Federal Qualified Health Center (FQHC) that is certified as a Primary Centered Medical Home (PCMH), which has twenty-four service areas, in the low country area. First, we use a process description and flow chart to describe how the center identifies patients. Next, we use combined secondary data sources to determine the number of missing patients and the resources used in the contact outreach. Data sources include CMS rosters and center contact provides a patient roster or list based on HEDIS measures to MCOs for them to share with the healthcare organizations. The healthcare organizations are supposed to use these patient rosters as a resource to identify missing quality gaps in-care of the patients assigned to their facilities, combined with claims from health insurance providers (Medicaid, Medicare, and commercial), which will are used to identify the population assigned by CMS. We will identify missing patients and assess the best outreach option or technique that our FQHCs can use to contact patients. The methods are used to assist in the outreach process for contacting those missing population are 1) the use of

electronic healthcare system to identify relatives of the missing population 2) the use of the internet to conduct a white pages' search and 3) the use of the postmaster service to purchase a list of names and address of individuals within the surrounding local towns and communities. The results are reported as the number (and percent) of the missing individual and which method was considered as the best outreach source to help locate the missing population. Data comparison is also used to determine those were contacted, how many were able to visit the assigned healthcare facility, and received the required services and care identified by private insurances and MCOs.

1.6 Data Analysis

We used the information provided by HEDIS sets and the Physician Quality Reporting System (PQRS). Descriptive statistics that are presented identify the best outreach method used to contact those patients identifies on the missing population list. The analytical data used in this research came from claims processed provided by MCOs of the individuals who had medical encounters with their healthcare provider. The analytical and statistical approach in this research is used to provide useful information to other healthcare organizations to assist those with the same or similar issues. There are more challenges with contacting the missing population, such as the cost to the healthcare organizations. An estimated cost of the staff time used and other fees of the process for outreaching to the current patients and the missing population is also included.

1.7 Study Limitation

There are some limitations to this study because of the limited research literature available involving the same problem or concerns. The study is a first-ever research project on this topic, it will need further development as the population continues to grow, and technology

continues to advance. The quality measures standards are used to improve the healthcare quality of care and service; however, it is difficult to provide those services if healthcare facilities are unable to contact their assigned patients. As the people continue to change their contact information and relocate, there will always be a missing population with healthcare needs. A cost analysis will be used for the first time to determine if it is beneficial for health care organizations to partner with MCOs to improve their quality scores.

CHAPTER II SCOPING LITERATURE REVIEW

The study objective is to determine how the Unintended Consequences of Population Health Medical Home Contracts with Managed Care Organizations to Improve Quality of Care, affects the overall financial status of a health care organization. The Center Medicare and Medicaid Services (CMS) implemented a quality initiative to improve the quality of healthcare and services for patients with Medicare and Medicaid benefits called Healthcare Effectiveness Data and Information Set (HEDIS) Measures. CMS assigned patients to healthcare facilities through patient's health plans to receive service based on HEDIS measures. The problem is that healthcare facilities are having difficulties with getting patients to come in for wellness or preventative screening visit. There are patients assigned to the healthcare facilities that have never visited a particular healthcare organization or facility, and now they are responsible for outreaching to ensure those patients receives the necessary care and services. These healthcare providers are required to contact those assigned patients and convince them to be a part of their medical home for care and services. Healthcare facilities are having difficulty contacting patients that were never serviced by them because the contact information provided by CMS such as phone numbers, address, and birth dates are incorrect and some of the patients contacted are not concerned about their wellness or preventative visit. Therefore they do not want to come in for those visits. Healthcare facilities are penalized for those assigned patients that will not get the necessary care and service identified by their health plans according to the HEDIS measures for the state. Our FQHC(s) will be at a quality risk if we do not make the necessary connections with our assigned patients identified as having a gap in quality of care. Some of the healthcare organizations started requesting that the MCOs need to assist with reaching those severe patients; after all, closing the quality gaps benefits everyone.

The MCOs agreed to assist in the outreaching process due to the missing population is difficulty to contact and those that refuse to have a wellness and preventative screening completed. Due to the difficulty of outreaching and contacting the missing population, some of the MCOs are assisting by:

1. Promoting the importance of getting annual wellness and preventative screening (Increasing Awareness)
2. Offering incentives to the patients for completing their visit(s), which closes the quality gap in care.
3. Offering incentives to healthcare facilities or organizations for having an exceptional number of patients closing their quality gaps.
4. If there is absolutely no way to contact a patient after multiple attempts, patients can be removed from a healthcare organization's list by providing documentation of three unsuccessful contact attempts (2 phone calls and one welcome letter); patient removal is not guaranteed.

The MCOs are offering patients incentives for attending their doctor's appointment, which has helped tremendously; however, we have patients who still refuse care.

The author tried to illuminate the issues with quality by identifying those older adults. They received only half of their recommended care, by varying quality and providing limited attention to social issues impacting patients' health through the most commonly used quality measure. It is currently known that there is a growing need for an improvement in quality measures that are specifically designed to help providers address the unique social needs of older adults (MacLeod et al., 2018). There is also an issue with contacting those older adults assigned to community health centers and other local providers for quality care and services. The type of

data or evidence used in this type of scholarly work were studies conducted in the United States, with a few elsewhere. This author used PubMed publication data from 2010 to later, with the recent studies published being prioritized based on relevant information required for the research. The approach or types of designs applied to this problem over time was a limited and specific targeted review of scientific literature conducted in an area relevant to clinical and nonclinical quality measures explicitly addressing the need of older populations. This review is not intended to be a comprehensive and traditional systematic review of the literature. The authors used the contents of the research and studies to assess the areas of needs and weaknesses of the current health care quality measures and compared the measures to the social determinants of health and other social concerns and quality of life issues (MacLeod et al., 2018). Yes, health care quality concerns have evolved into a more sophisticated approach because these research intentions are to focus primarily on quality measures. However, during the process, the researchers started identifying gaps in the literature and the need for awareness of nonclinical issues with quality measures for patients managed by MCOs.

The information presented in this literature requires further research; therefore, the next approach would be to identify all the older adults with a missing gap in care quality defined by their MCOs, along with their social barriers. The authors stated that there is a need for a broader, more comprehensive health care quality measures to address the basic needs and social concerns of older adults. The researchers identified some nonclinical social factors that are known to impact older adults. One of the private health insurance developed a "life situation" questionnaire to assess social determinates including patients' living situation, financial and housing needs and shortfalls, food security, transportation access, activities of daily living, and others' concerns (MacLeod et al. 2018). One of the main issues with doing this assessment is

being able to contact a sufficient number of older adults to complete the life situation questionnaire to obtain adequate responses to correct or assist with barriers. Other authors have organized their inquiries based on research data collected from PubMed, google scholar, Medline, and CMS. Their studies have qualitative and quantitative data that has identified healthcare quality measures methods or elements from sources such as HEDIS and Agency for Healthcare Research and Quality (AHRQ). HEDIS and AHRQ obtain the majority of their information from insurance companies such as Managed Care Organizations (MCOs) and Accountable Care Organizations (ACOs). These quality measures standards are required of everyone, including the employed, non-employed, children, adolescents, Medicare, and Medicaid recipients.

The analytical or statistical approaches that were employed are those researched at the Research and Development (RAND) Health Corporation developed for Assessing Care of Vulnerable Elders (ACOVE) quality indicators to evaluate care delivered to Americans. ACOVE highlights 22 individual clinical conditions that account for most of the care seniors receive. (RAND) has established 236 quality indicators to set standards of care (MacLeod al. 2018). HEDIS sets and Physician Quality Reporting System (PQRS), uses analytical or statistical data to identify social concerns and determinants of health that impact the quality of life of people in America. There will be potential for improvement in quality due to the missing population who are not included in the analytical or statistical data. There is a missing population of individuals because health care organizations such as health centers, doctors' offices, clinics, and specialty offices are having difficulty contacting or outreaching individuals assigned to their health care facility. These individuals either have relocated, changed their phone numbers, gotten married or remarried, or even died, without any notification sent to the Center of Medicare and Medicaid

Services (CMS) or the US Social Security Administration (SSA). Due to the lack of notification changes, it had made it difficult for healthcare agencies to contact those individuals.

There are additional studies that focus on the impact of financial incentives provided to Medicaid patients for encouragement to be more health-conscious and get their wellness and preventative visits as required by their MCO. If patients receive their wellness and a preventative visit from their health care provider, it increases their quality of care, and healthcare organizations improve their quality scores based on the standard given to the patients. When healthcare organization provides high quality of care by closing the quality and HEDIS, it increases their funding from MCOs. Therefore, MCOs have started providing patients incentives to assist in encouraging patients to the necessary preventative and managed care treatments they need.

The overall objective of Hawaii's Medicaid Incentives for Prevention of Chronic Disease (MIPCD) grant, Hawaii Patient Reward, and Incentives to Support Empowerment (HI-PRAISE) project was to examine the impact of incentives on diabetes management among adult Medicaid beneficiaries diagnosed with diabetes. The researcher's evaluation measures included:

1. Clinical Outcome
2. Compliance with the American Diabetes Association (ADA) standards of medical care in diabetes
3. Cost-Effectiveness
4. Quality of Life
5. Self -Management Activities
6. Satisfaction with Incentives (Fernandes et al., 2018, pg. 2).

An observational pre-post study conducted at nine Federally Qualified Health Centers (FQHCs) between 2013 to 2015. In the case study, there were 2,003 participants included in the study that provided them the opportunity to receive up to $320/year in financial incentives for being more responsible for managing their hypertension, diabetes, and cholesterol levels, along with being compliant with the American Diabetes Association (ADA) standards of diabetes care and cost-effectiveness (Fernandes et al., 2018).

Fernandes et al. 2018, obtained data from an observational study of 2,003 participants from nine federally qualified health centers (FQHCs) in Hawaii from February 2013 to December 2015. A randomized control trial (RCT) with 320 participants was also conducted at Kaiser Permanente Hawaii from May 2014 to December 2015. The cost analysis, a randomly selected comparison group (N=2,719) of Medicaid adults with Type 1 or Type 2 diabetes obtained through the Hawaii Department of Human Services (DHS). An Institutional Review Board approval was obtained from the University of Hawaii, one FQHC, and Kaiser Permanente Hawaii. This research data has evolved from a more sophisticated approach to improve managed care in diabetic patients.

The authors were able to prove the success of the incentive programs for patients because five of the nine FQHCs showed significant improvement among their participants in the mean level of HbA1c from baseline to the end of the study. The authors' next approach should be focused on the cost analysis of what it entails to assist patients in improving their health outcomes. The authors used a minimum data set (MDS) to develop their measuring and to report findings across the MIPCD grantees that included five common domains; enrollment, demographics, services, incentives, and clinical outcomes. The demographic variables included: age, sex, education, race, ethnicity, Compact of Free Association (COFA) status, insurance,

Medicare status, and housing arrangements, along with a history of hypertension, heart disease, and smoking. There were other factors collected during the clinical outcomes such as weight, height, body mass index (BMI), blood pressure, fasting glucose, HbA1c, fasting lipids profile, renal function, smoking cessation, retinopathy, and influenza/pneumococcal vaccination status (Fernandes et al. 2018). There was a combination of statistical analysis used in this study to determine the impact of financial incentives on health outcomes and costs of care. There were several approaches used to determine the best health outcome based on incentives, however further studies based on a cost analysis need to be implemented to determine the cost for the extra staffing and support team used to complete the study.

Insurance payers have been assigning patients to healthcare facilities since 2015 when Congress passed the Medicare Access and CHIP Reauthorization Act (MACRA). The Medicare Access and CHIP Reauthorization Act (MACRA) regulations have been finalized, and Fiesinger (2016), published because of the MACRA.

> "We are learning the extent to which Medicare payment will be transformed. Their payments will now be directly connected to the quality and cost of the care provided. Those of them who provide higher quality, lower-cost care will be paid more, and those who did not follow the standards are paid less. To accomplish its stated goal of tying 90 percent of all Medicare payments to quality or value by 2018, the Centers for Medicare & Medicaid Services (CMS) must know exactly which Medicare patients are yours and which are not. The process that commercial and government payers use to assign patients to the physicians who are held accountable for their care is called attribution" (Fiesinger, 2016, pg.1),

There are some concerns with how they assign patients and the information given to the providers after the assignment, which in some cases is incorrect information. The data or evidence used in this article consists of qualitative data. This qualitative data explains and identifies strategies that assist in improving patient quality of care, payment systems, and attributions used in the reimbursement process for providers. The information presented in this article includes the following:

1. Rules of attribution
2. How do payers define patient care?
3. How do payers determine who provided patient care (Fiesinger, 2016)?

The approach or types of study designs applied to the issues presented are qualitative attributes information that explains, according to Fiesinger (2016), how payers assign patients to you will affect how your practice is evaluated and paid for value in the future.

The type of study design recommend as the next step in examining some of the issues presented in this article would be a cross-sectional study. Cross-sectional research is used to assess those patients assigned by payers to determine if the attribute methods discussed in this article made a difference in the quality of life for those patients. The study would assist in evaluating and comparing a cost analysis of the process to provide the necessary care and services to patients assigned to healthcare providers by payers. This process would also determine if there are any real benefits to healthcare providers for being a participant in the quality incentive program. The benefits have to be considered for both the patients and the providers to be considered successful.

There are minimal inquiries performed by other authors on the subject because of the limited access to information, due to this being a new issue presented. The topics discussed in

the article involve identifying, according to Fiesinger (2016), some payers attribute patients to individual physicians, and others attribute patients to a group practice or even an accountable care organization (ACO) if the physician or group belongs to one. Whether patients should be assigned to individual clinicians or groups or health systems is controversial. For physicians, it may feel unfair for payers to map a patient's quality and cost measures to them when they do not control all of the factors that influence those measures.

The analytical approach employed in this article consisted of how the payers and payments made to the healthcare providers are evaluated and processed. Medicare and other payers have policies, rules, and guidelines that can be confusing and difficult to understand. Health care organizations have to monitor and evaluate their process of receiving funding for insurance companies. Those payers will find loopholes to reduce healthcare organizations' payment rates due to the lack of care and services provided to their members. Healthcare organizations have the opportunity to maximize reimbursement; if they provide the care and services required by the payers (Fiesinger et al., 2016) To benefit both the patients and the providers, healthcare providers need to be aware of the attributes required to improve their quality standards. The payers will identify missing or gaps in-care of patients during the assignment process that needs to be addressed during a patient's visit to ensure maximizing reimbursement payments for services rendered.

The quality of care provided to children is imperative and sensitive. There is an increasing number of children covered by Medicaid, and some of these children have medical complexity. Berry et al. (2014), published that "children with medical complexity (CMC) are a growing population of children with expensive, complex, and chronic medical conditions that often lead to 1) functional limitations, which are often severe; 2) substantial health service needs

to maintain health, including numerous clinicians, medications, equipment, therapies, and surgeries; and 3) high health resource utilization" (Berry et al., 2014, pg. 2), In response to these financial and quality of care concerns, innovation models of care management are emerging to help CMC and their families." The quality of care the children with medical complexity (CMC) requires can be very expensive and strenuous on the family members; therefore, clinics are being developed to assist in helping with managing care of these chronically ill children.

The data or evidence used in this study was according to Berry et al. (2014), is consisted of

> "assessed healthcare use and spending for CMC with Medicaid from two administrative databases: 1) the Truven Marketscan Medicaid Database; and 2) the Agency for Healthcare Research and Quality (AHRQ) Healthcare Cost and Utilization Project's Kids' Inpatient Database (KID). The Truven database contains medical claims across the care continuum (i.e., community, hospital, pharmacy, outpatient, etc.) for 3,686,635 Medicaid enrollees age 0–18 years, including children, enrolled through the Children's Health Insurance Program (CHIP), in 2011 from 12 states representing all U.S. geographical regions. KID is the largest multi-state database of U.S. hospitalizations for children. With data from 2000, 2003, 2006, and 2009, each year of the KID contains up to 3.4 million hospitalizations for children ages 0–18 years, from up to 4,121 hospitals in 44 states. The dataset includes weights to produce national estimates of hospital use for CMC" (Berry et al., 2014, pg. 3).

This type of approach or study designed applied to the children with medical complexity problem is a retrospective study of administrative billing data that "used the open-source set of

pediatric Complex Chronic Conditions (CCC) to identify children with a complex and chronic health condition – the hallmark attribute of CMC - with International Classification of Diseases, Ninth Revision, Clinical Modification(ICD-9-CM) diagnosis and procedure codes. Used extensively to study CMC, the CCCs are childhood health conditions that are expected to last longer than one year and that are associated with severe limitations in function, high morbidity, and mortality, and high resource utilization" (Berry et al., 2014, pg. 3). The type of study or design for the next step in examining the quality and cost of care for children with medical complexity to assess the probability of CMC experiencing future healthcare expenditures. There is an increasing desire for quality healthcare service includes an increasing cost of managing chronically ill patients. Most insurance companies try to decrease costs and still request providers to provide quality care and services to their clients. This method does not always balance out well; therefore, more studies need to be conducted to prove the importance of finance and teamwork to improve healthcare quality.

The data is from a more sophisticated approach, and the statistical analysis was analyzed by using SAS version 9.1.3 (SAS Institute Inc, Cary, NC). The authors used the Mantel-Haenszel Chi-Square test to assess whether hospital resource use in the KID from 2000 to 2009 for CMC stayed constant. The significance threshold was defined as p-value <.05 (Berry et al., 2014). The recommendation is to improve the statistical approach because it is appropriate for the author's intention of their study, which is to bring awareness to the challenges and opportunities to improve care for children with medical complexity along with cost analysis. Medicaid mandates providing quality of care to the patients; however, they try to decrease the cost for those care and services, which may affect the resources needed to aid in providing those care and services. Medicaid has to realize that decreasing costs is not as important as the

children's well-being. According to Berry et al. (2014), there is a need to "develop a national publicly available database of healthcare cost and utilization, combining data from Medicaid and private payors, to assess longitudinal trends in spending and health outcomes for children with medical complexity (CMC), especially in the context of predicting future expenditures and examining innovations aiming to both improve the quality and efficiency of healthcare for these children" (Berry et al., 2014, pg. 8). The CMCs and their families should not have to endure any cost for care and service if they have Medicaid; however, Medicaid could limit the type of service these children receive.

CHAPTER III METHODOLOGY

3.1 Research Design

The research design is a qualitative research of claims from health insurance providers (Medicaid, Medicare, and Commercial) to identify the population assigned by CMS to determine the best outreach option or technique that our FQHCs will implement to contact patients. The outreach methods have been compared, and the data collected was used to identify the process that works best for patient outreach. Throughout this research, there are data collected to determine the best option to apply for patient outreach. This information has been used to determine how many patients are without medical homes that get assigned to our Federally Qualified Health Center (FQHC). It has also been determined and discussed in this research the health conditions of the designated population. The assigned population's health determinants have been identified and are an essential factor in why patients have gaps in health care.

The Centers for Medicare and Medicaid Services (CMS) has implemented a quality initiative to improve the quality of healthcare and services for patients with Medicare and Medicaid. Patients are assigned to a "Medical Home" (MH) in their geographic area, and the

quality of care provided by this MH is judged on statistics on the Healthcare Effectiveness Data and Information Set (HEDIS) Measures. CMS assigns patients to healthcare facilities through patient's health plans to receive services. However, some of the patients assigned to a healthcare facility have never visited that particular facility, yet the organization is responsible for their quality of care indicators. The assigned healthcare organization or facility is responsible for reaching out to ensure that patients receive the necessary preventive care and services. There is no clearly defined approach to find this missing population. Health centers, doctors' offices, clinics, and specialty offices are having difficulty reaching these individuals assigned to them. These patients may have relocated, changed their phone numbers, gotten married or remarried, or even died, without any notification sent to the Center of Medicare and Medicaid Services (CMS) or the US Social Security Administration (SSA). However, the provider is responsible for contacting their assigned patient. Nevertheless, no efficient or documented approach has been defined for performing this task. This research document the success and unsuccess in reaching "missing" patients using qualitative and quantitative data from one health center as an example.

3.2 Data Sampling Approach

This research is using secondary data sets. The secondary data set, according to Shi (2008), is considered as a longitudinal study, which is designed to permit observations over an extended period. The longitudinal study that correlates the best with this research is trend study. A trend study is one that investigates changes within some general population overtime" (Shi, 2008, pg. 23). The Center for Medicare and Medicaid Services (CMS) provides a patient roster or list based on HEDIS measures to HMOs for them to share with the healthcare organizations. The healthcare organizations are supposed to use these patient rosters as a resource to identify missing quality gaps in-care of the patients assigned to their facilities.

3.3 Measuring Results

Qualitative research of claims from health insurance providers (Medicaid, Medicare, and Commercial) to identify the population assigned by CMS, to determine the best outreach option or technique that our FQHCs will implement to contact patients, will be performed. The outreach methods have been compared, and the data collected is used to identify the process that works best for patient outreach. The techniques are used to assist in the outreach process for contacting those missing population are 1) the use of electronic healthcare system to identify relatives of the missing population 2) the use of the internet to conduct a white pages' search or other internet sources and 3) the use of the postmaster service to purchase a list of names and address of individuals within the surrounding local towns and communities. The results are measured based on the number of the missing individual that was able to be contacted and which method was considered as the best outreach source to locate the missing population. Data comparison is also be used to determine how many of those patients were contacted, how many were able to visit their assigned healthcare facility, and received the required services and care identified by private insurances and HMOs. There are other methods required for outreaching attempts for the patients that were not contacted during the initial process. The cost of the outreaching process has to be included and calculated because of the workforce and resources used for outreaching the missing population.

3.4 Analytical or Statistical Approach

In this research, I provided information from HEDIS sets and the Physician Quality Reporting System (PQRS). There is statistical data information to identifies the best outreach method used to contact those patients that are on the missing population list. These outreach method includes contacting patients by the following:

1. Phone Call
2. Members Search
3. Send Welcome Letter
4. Contact the Insurance Provider for Claims Review

The population and outreach staff are required to contact each patient at least three times to schedule an appointment for an office visit. If the staff is unable to contact the patient by phone, the next option is to send a welcome letter to their last known address. Patients are allowed at least fourteen days to respond to the welcome letter. If there is not a response to the certified mail, the quality coordinator is to contact the patients' HMOs claims department. The analytical data from the claims processed by HMOs of the individuals are used to determine if the patients had a medical encounter with other healthcare providers. The analytical and statistical approach in this research will is used to provide useful information to other healthcare organizations to assist those with the same or similar issues.

3.5 Limitations of the Study

There are some limitations to this study because of the limited research literature available involving the same problem or concerns. The study is a first-time research project that will need further investigation as the population continues to grow, and technology continues to advance. The quality measures standards are used to improve the healthcare quality of care and service; however, it is difficult to provide those services if healthcare facilities are unable to contact their assigned patients. As the patients continue to change their contact information and relocate, there will always be a missing population that needs outreaching. There are challenges to consider with contacting the missing population, such as the cost to the healthcare organizations. A cost analysis of the staffing process for outreaching to current patients and the

missing population have not been considered until now. In this study, there is a cost analysis to determine the following:

1. Who benefits the most from the quality improvement programs?
2. Is it worth the effort for the healthcare organization?
3. What can the HMOs do to assist the healthcare organization in their outreach process?
4. How can HMOs hold patients accountable for their gaps in healthcare to decrease the agency's cost while improving their quality scores.

There are limitations as well due to a lack of a cost analysis of the process to answer the questions listed above or any other questions healthcare organizations may what to ask. This research is the first study of this kind to conduct a complete cost analysis associated with increasing and improving patients' quality of care by closing health care gaps, along with improving healthcare organizations' quality scores.

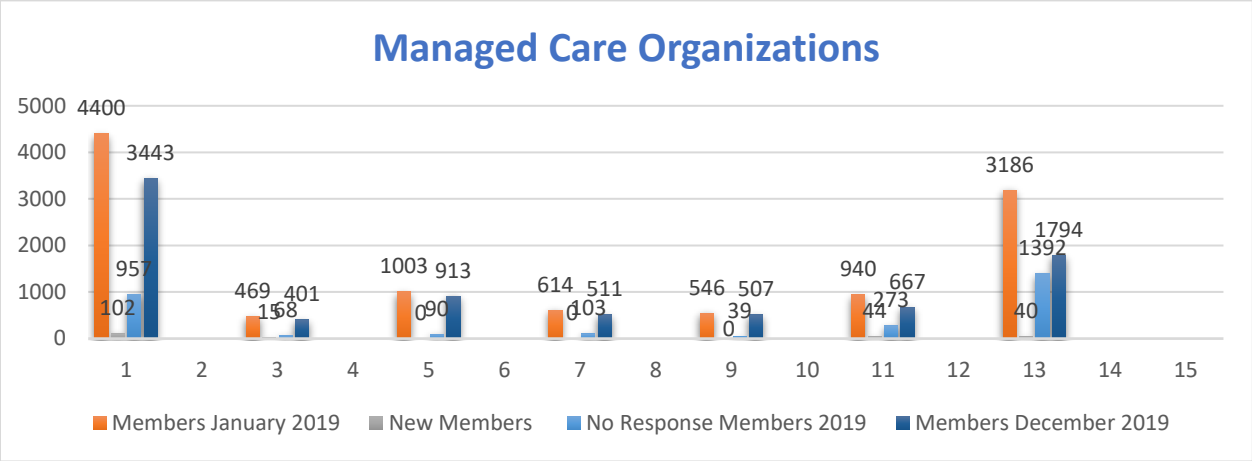
CHAPTER IV RESULTS

4.1 Health Plans Numbers

The Managed Care Organization Health Plans provides healthcare organizations such as Health Centers with members lists that identify patients assigned to their organization. This members' roster consists of current patients and new patients assigned to the health care organization based on each health plans' service area. The list includes members' names, dates of birth, last known address, and phone number. The health plans provide a 30-45 days members list in which the healthcare organizations' staff will use for outreaching the members to schedule an appointment to receive services to close their gaps-in-care. The seven health plans discussed in this study are the well-known managed care plans with the most patients receiving assistance from our health center.

MCO Health Plans	Members January 2019	New Member 2019	No Response Members 2019	Members December 2019
Health Plan 1	4400	102	957	3443
Health Plan 2	469	15	68	401
Health Plan 3	1003	0	90	913
Health Plan 4	614	0	103	511
Health Plan 5	546	0	39	507
Health Plan 6	940	44	273	667
Health Plan 7	3186	40	1392	1794

Chart 1: MCOs members' list for the health center.



The chart above identifies the managed care organizations' health plan actual numbers of assigned members to the health center. Health Plan 1 assigned 4400 members to the health center as of January 1, 2019. The actual members of the health center by the end of December 31, 2019, were 3,443 (78%), it includes the current members 3,341(97%) and the new members 102 (3%), there were 957 (22%) members who did not respond to the outreach methods. Health Plan 2 assigned 469 members to the health center as of January 1, 2019. The actual members of the health center by the end of December 31, 2019, were 401 (85%), it includes the current members 386 (96%) and the new members 15 (4%), there were 68 (15%) members who did not respond to the outreach methods. Health Plan 3 assigned 1003 members to the health center as of January 1, 2019. The actual members of the health center by the end of December 31, 2019, were 913 (91%), these were all current members, and there were 90 (9%) of members who did not respond to the outreach methods. Health Plan 4 assigned 614 members to the health center as of January 1, 2019. The actual members of the health center by the end of December 31, 2019, were 511 (83%), these were all current members, and there were 103 (17%) of members who did not respond to the outreach methods. Health Plan 5 assigned 546 members to the health center as of January 1, 2019. The actual members of the health center by the end of December

31, 2019, were 507 (93%), these were all current members, and there were 39 (7%) of members who did not respond to the outreach methods. Health Plan 6 assigned 944 members to the health center as of January 1, 2019. The actual members of the health center by the end of December 31, 2019, were 667 (71%), it includes the current members 623 (93%) and the new members 44 (7%), there were 273 (29%) members who did not respond to the outreach methods. Health Plan 7 assigned 3186 members to the health center as of January 1, 2019. The actual members of the health center by the end of December 31, 2019, were 1794 (56%), it includes the current members 1754 (98%) and the new members 40 (2%), there were 1392 (44%) members who did not respond to the outreach methods.

4.2 Outreach Workflow Process

The process of outreaching to the managed care organizations' members from each health plan can be expensive and time-consuming. There is a process with an outline flow to aid in contacting newly assigned patients. The managed care organizations provide a list of assigned members to the health center or health care organization. The population health or designated staff begins their process by using the information from the members' list to call patients. A successful contact aid in determining if they have a primary care provider (PCP), if yes, then the MCO is notified to remove the patient from the member's list. If the answer is no to having a PCP, the member is encouraged to become a patient of the health center, and appointment set-up for a medical visit and signs patients up for the health center's patient portal and a welcome letter is sent to the patient. The entire process depends on correct patient information provided; if it is not accurate, then the next process is to research patients' contact information via the internet, etc. If this is not successful, then the next step is to send a welcome letter to the last known address. Once an established address is found, then a welcome letter is sent to the new

members' home; in expectations, the address is correct. It is fourteen days waiting period for a response from a member before the health plan is contacted for removal of non-contacted member(s) from the list. A successful outreach to a new member begins with the recruiting process to encourage the member to allow the health care organization to become their Patient-Centered Medical Home (PCMH). A PCMH is a health care organization that has multiple services to offer their patients, such as medical, dental, behavioral health, women's health, etc. The outreaching and recruiting process of new members can be challenging, time-consuming, and expensive.

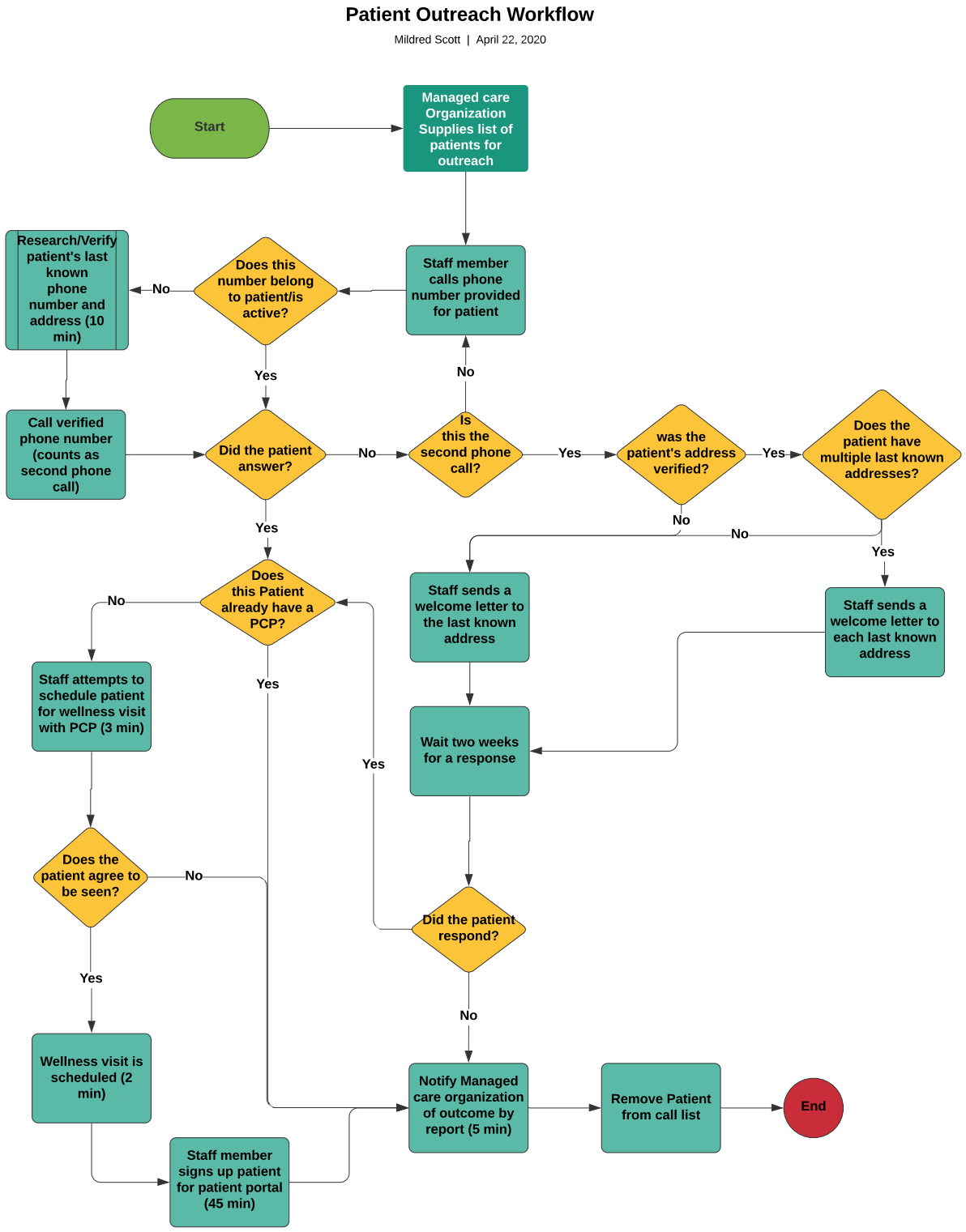


Figure 1. The patient outreach workflow for the health center.

4.3 Cost Analysis

Cost Analysis for Outreaching/Recruiting New Members = $109,616/Year

MCO Health Plans	New Members/Pts 2019	No Response Mbrs/Removal 2019	Staff Outreach 65 mins/Mbr	Welcome Letter 0.65/letter	Staff Cost 0.53/mins	Total Cost Per/MCO
Health Plan 1	102	957	68,835 mins	1059 ($688)	$36,481	$37,169
Health Plan 2	15	68	5,395 mins	83 ($54)	$2,859	$2,913
Health Plan 3	0	90	5,850 mins	90 ($59)	$3,101	$3,160
Health Plan 4	0	103	6,695 mins	103 ($67)	$3,548	$3,615
Health Plan 5	0	39	2,535 mins	39 ($25)	$1,344	$1,369
Health Plan 6	44	273	20,605 mins	317 ($206)	$10,921	$11,127
Health Plan 7	40	1392	93,080 mins	1432 ($931)	$49,332	$50,263

Chart 2. A sample of the MCOs contracted with the health center.

There are seven MCOs included in this cost analysis to determine the significance of the health center's contact with the MCOs. Health Plan 1 assigned the health center 1059 new members, and a population health staff makes an outreach attempt to each member; the estimated minutes spent was 68,835 (1059:65) on the members. All members in this group received a welcome letter, and this is sent whether they can be contacted or not, which is a cost of $688 (1059:0.65), and the estimated cost for the staff is $36,481 (68,835:0.53). The total cost for Health Plan 1 members' outreach is $37,169 ($36,481:$688). Health Plan 2 assigned the health center 83 new members, and a population health staff makes an outreach attempt to each member; the estimated minutes spent were 5,395 (83:65) on the members. All members in this group received a welcome letter, and this is sent whether they can be contacted or not, which is a cost of $54 (83:0.65), and the estimated cost for the staff is $2,859 (5,395:0.53). The total cost for Health Plan 2 members' outreach is $2,913 ($2,859:$54). Health Plan 3 assigned the health center 90 new members; a population health staff makes an outreach attempt to each member; the estimated minutes spent was 5,850 (90:65) on the members. All members in this group received a welcome letter, and this is sent whether they can be contacted or not, which is a cost of $59 (90:0.65), and the estimated cost for the staff is $3,101 (5,850:0.53). The total cost for

Health Plan 3 members' outreach is $3,160 ($3,101:$59). Health Plan 4 assigned the health center 103 new members, and a population health staff makes an outreach attempt to each member, the estimated minutes spent was 6,695 (103:65) on the members. All members in this group received a welcome letter, and this is sent whether they can be contacted or not, which is a cost of $67 (103:0.65), and the estimated cost for the staff is $3,548 (6,695:0.53). The total cost for Health Plan 4 members' outreach is $3,615 ($3,548:$67). Health Plan 5 assigned the health center 39 new members, and a population health staff makes an outreach attempt to each member, the estimated minutes spent was 2,535 (39:65) on the members. All members in this group received a welcome letter, and this is sent whether they can be contacted or not, which is a cost of $25 (39:0.65), and the estimated cost for the staff is $1,344 (2,535:0.53). The total cost for Health Plan 5 members' outreach is $1,369 ($1,344:$25). Health Plan 6 assigned the health center 317 new members, and a population health staff makes an outreach attempt to each member, estimated minutes spent was 20,605 (317:65) on the members. All members in this group received a welcome letter, and this is sent whether they can be contacted or not, which is a cost of $206 (317:0.65), and the estimated cost for the staff is $10,921 (20,605:0.53). The total cost for Health Plan 6 members' outreach is $11,127 ($10,921:$206). Health Plan 7 assigned the health center 1432 new members, a population health staff made an outreach attempt to each member, estimated minutes spent was 93,080 (1432:65) on the members. All members in this group received a welcome letter, and this is sent whether they can be contacted or not, which is a cost of $931 (1432:0.65), and the estimated cost for the staff is $49,332 (93,080:0.53). The total cost for Health Plan 7 members' outreach is $50,263 ($49,332:$931). The seven MCOs assigned 3,123 members to the health center, the population health staff made an outreach attempt to each member with an estimated cost of $107,586 and a mailing of welcome letters

cost of $2,030. The total cost for outreach/recruiting of these members for the seven MCOs is $109,616. The cost for outreach/recruiting of MCOs new members can be expensive. Health care organizations have to determine if it is worth the cost to contracts with MCOs that requires the health care organization to use their manpower/staff and resource to contact MCOs members?

CHAPTER V CONCLUSION

5.1 An Overview

Improving population health through policy changes and standards set by the Center for Medicare and Medicaid Services (CMS) is challenging for the healthcare organization. The private sector health plans have been replicating Medicare and Medicaid policies and standards; therefore, they are now on board with mandating health care organizations responsible for improving the quality of care and services of their members. An initiative set forth by CMS called HEDIS measures is used to improve the quality of care by assuring patients access to care. However, there is a significant problem with what is considered the "missing population" who must be found by health centers and other health care organizations. The "missing population" primary source of information came from CMS, which was provided to MCOs, who then assigned that members to health centers and other healthcare organizations. The "missing population" are those members of MCOs that are not active patients of the health center and have not been receiving care or services such as annual wellness exams, medical lab testing, and other preventive or diagnosis screening. This population can cause health centers' HEDIS scores to decrease, presenting an image the health center staff is incapable of providing quality care and services to their patients.

5. 2 Questions and Answers

In the being of this study, there were questions presented, such as:

1. What is the process used to find the "missing" patient?

- The answers to this question number one are outlined in figure 1, the Patient Outreach Workflow. The workflow is the process that the population health staff at the health center must follow to stay on the task of finding the mission population or assigned

member. This process was implemented to track the steps and time it requires to complete the outreach for one missing member. The end of this workflow for each missing member will result in either an appointment or an attempt of removal for the health center's assigned members' list.

2. What are the resources (and estimated cost) used for the current process?

- The answer to question number two (2) is the outreach staff have limited resources besides the internet or purchasing the mailing list from post offices to find the last known phone number and location of the missing member. The estimated cost, as identified in chart 2, is approximately $109,616, which is a sample of the MCOs from the health center.

3. Can this process be improved?

- Yes, this process can be improved based on the study and information obtained from the population health staff. MCOs pressure health centers to find their missing population before internal research is performed. The manpower and cost are first placed on the health center through their workflow process, and then once the center is unable to locate an individual, the MCOs start their process of research form the last medical claims processed for the member. If there is a claim identified, then the MCO will assign the missing member to the healthcare organization with the medical claim attached, except for hospitals. The MCO's process appears to be retrograde, in which they should start their process from their claims department and then assigned members; this would eliminate some of the time and cost for the health center. Some of the MCOs agreed; however, they presented that their internal process to the claims department would take a few weeks or even months to research those missing members.

4. Is it worth the cost of finding "missing" patients to improve the quality of care?

- It depends on how many missing members are assigned to the healthcare organizations, and if the members are found, will they be interested in becoming a patient and keep their appointments. The estimated reimbursement for one patient's wellness visit is about $166, however other factors are involved in the actual cost for a visit such as supplies, all associated staff salaries, facility usage, etc. The cost may not be worth the difficulty of finding the missing patient; however, the quality of care and service provided to a much need individual outweighs the cost in the end.

5.3 Challenges Missing Population

There are some challenges with contacting the "missing population," however, it depends on the health centers to determine how to conquer those challenges.

1. Who benefits the most from the quality improvement programs?

- The patients benefit the most for the quality improvement programs from the health center's perspective. The MCOs could benefit more based on the incentives or funds that they receive from the CMS for their members receiving quality care.

2. Is it worth the effort for the healthcare organization?

- Yes, it is worth the effort if the healthcare organization is in a sustainable financial position. The care and services provided to the missing population could improve those individuals' life expectancy.

3. What else can the MCOs do to assist the healthcare organization in their research process?

- MCOs need to be more proactive and research their members internally with all of their resources before assigning the missing population to health centers and others.

4. How can (or should) MCOs hold patients accountable for their gaps in healthcare to decrease the agency's cost while improving their quality scores?

- MCOs should hold members/patients more accountable by requiring them to report changes of contact information and PCP to them immediately or lose coverage. If members or guardians are responsible enough sign-up for the benefits, they should be held accountable for reporting any changes.

5.4 Conclusion and Recommendations

The recommendation to improve the public policy efforts to improve population health must start with the Center of Medicare and Medicaid (CMS). CMS should require members receiving benefits to update their contact information at least twice a year. Updated contact information is essential because individual personal information and status are liable to change through the year. MCOs need to become more proactive in assisting with locating their missing members. All of the burden and cost should not be obtained by health centers and other healthcare organizations to find those missing members. MCOs should provide staff, more incentives, and support to the health center to improve the quality of care for all patients. Patients of the health centers located in those poverty areas heavily depend on the centers for more than medical care and services. These centers support the community medically, financially, and mentally. The HEDIS measure performance improvement tool has assisted the health center in focusing on patients based on the missing gaps-in care by identifying specific medical needs requiring immediate attention. Improvement in patients' health status will always outweigh any cost; however, financial sustainability has to be maintained to support the exceptional quality of care and service given.

Acronyms

ACO- Accountable Care Organization

ACOVE- Accessing Care of Vulnerable Elders

ADA- American Diabetes Association

AHRQ- Agency for Healthcare Research and Quality

BMI- Body Mass Index

CCC- Complex Chronic Conditions

CHIP- Children Health Insurance Program

CMC- Children with Medical Complexity

CMS- Center of Medicare and Medicaid Services

COFA- Compact of Free Association

DHS- Department of Human Services

FQHCs- Federally Qualified Health Centers

GEE- Generalized Estimated Equation

HEDIS- Health Effectiveness Data and Information Set

HI-PRAISE- Hawaii Patient Reward and Incentives to Support Empowerment

HMO- Health Managed Organization

ICD-9-CM- International Classification of Diseases, Ninth Revision, Clinical Modification

KID- Kid Inpatient Database

NCQA- National Committee for Quality Assurance

MACRA- Medicare Access and CHIP Reauthorization Act

MCOs- Managed Care Organizations

Acronyms

MDS- Minimum Data Set

MH- Medical Home

MIPCD- Medicaid Incentives for Prevention of Chronic Disease

PCMH- Patient-Centered Medical Home

PCP- Primary Care

PQRS- Physician Quality Reporting System

RAND- Research And Development

RCT- Randomized Control Trial

SSA- Social Security Administration

SNP- Special Needs Plan

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